



3. MILITARY MISSION

BRIGADE MISSION

Be prepared to deploy rapidly in the Pacific theater and worldwide as directed to support contingency operations, and if necessary to defeat enemy forces in operations other than war or with mission specific augmentation, fight and win in a major regional conflict.

3-1 General

The primary military mission of Fort Greely and USARAK after the Cold War has been peacetime deployment to support U.S. interests worldwide, the defense of Alaska, and the coordination of Army National Guard and Reserve activities in the state. Fort Greely's lands are used for testing and evaluating weapons and equipment under conditions of extreme cold, training forces for action in Arctic and subarctic regions in the event of war, and for training by the 172nd Infantry Brigade (Separate).

The Cold Regions Test Center (CRTC) is responsible for testing troops, materiel, and equipment under conditions of extreme cold. The CRTC is charged with planning, conducting, and reporting on environmental phases of development tests and providing advice and guidance on test and evaluation matters to materiel producers, the other armed services, and private industry.

Northern Warfare Training Center (NWTC) is responsible for training forces for action in Arctic and subarctic regions. The NWTC trains Arctic and mountaineering units in winter and summer condi-

tions, and maintains and improves state-of-the-art mountain and northern operations for U.S. Army. The NWTC conducts high-altitude search and rescue missions, tests and evaluates mountaineering techniques and equipment, and trains and equips the Military Mountaineering Team.

The Gerstle River Test Site was used by CRTC for testing chemical, biological, and conventional munitions. Primary use was assumed by the NWTC in the early 1980s for a variety of training, including a biathlon course and a Forward Arming and Refueling Point for aviation units. In 1988, the area came under control of the newly created Range Control, Directorate of Plans, Training, Security, and Mobilization (DPTSM).

The East Training Area is used primarily as a nonfiring maneuver area. CRTC utilizes the East Training Area for experimental airdrops; airborne training; and testing of clothing, vehicles, and equipment.

The West Training Area is used for training and testing weapons and equipment (including experimental designs) under conditions of extreme cold. Weaponry testing include rockets, mortars, small arms, and artillery. The West Training Area also is used for testing wheeled and tracked vehicles.

The U.S. Air Force (USAF) is a major user of Fort Greely for routine training and Major Flying Exercises. USAF uses the Oklahoma/Delta Creek Impact Area as its primary tactical air-to-ground weapons range, and for low and high altitude bombing by B1 and B52 aircraft. The Yukon Measurement and Debriefing System, a computerized system that can create "air wars" of up to 36 aircraft simultaneously, has been installed on the West Training Area. USAF pilots are debriefed to show how they reacted to enemy aircraft and various other simulated conditions. The Oklahoma/Delta Creek Impact Area is equipped with USAF targets, manned radar emitters, anti-aircraft threat simulators, and electronic scoring sensors.

Typically one MFE is conducted between February and April, four exercises between May and August, and one exercise between October and November. This results in USAF total use of YTA for about two or three hours each morning and afternoon dur-

ing the two-week exercises. COPE Thunder, an USAF MFE formerly conducted at Clark AFB in the Philippines, is now conducted at Fort Greely and other areas.

The following describes Air Force and Army use of Restricted Airspace over Fort Greely in FY 95:

Big Delta, Alaska, R2202 A

Type of Aircraft Operations – Close air support, aerial gunnery, rockets, bombing, and test flights

Aircraft – A-10, F-14, F-15, F-16, F/A-18, F-111, GR-1, GR-3, B-52, B-1, KC-135, UH-1, OH-58, UH-60, AH-60, Bell 206, CH-47, OH-58D, C-130, and C-141

Number of Air Operations – 4,201 sorties

Number of Days Used – 301

Number of Hours Used – 6,102

Big Delta, Alaska, R2202 B

Type of Aircraft Operations – Close air support, rockets, bombing, and test flights

Aircraft – A-10, F-14, F-15, F-16, F/A-18, GR-1, GR-3, B-52, B-1, KC-135, UH-1, OH-58, HH-60, Bell 206, CH-47, and MQM-34 Drone

Number of Air Operations – 4,152 sorties

Number of Days Used – 249

Number of Hours Used – 1,633

Big Delta, Alaska, R2202 C

Type of Aircraft Operations – Close air support, rockets, bombing, and test flights

Aircraft – A-10, F-14, F-15, F-16, F/A-18, GR-1, GR-3, B-52, B-1, KC-135, UH-1, OH-58, HH-60, Bell 206, and CH-47

Number of Air Operations – 4,152 sorties

Number of Days Used – 249

Number of Hours Used – 1,633

Battalion-sized and larger elements of the 172nd Infantry Brigade train at Fort Greely throughout the year. Training exercises may include deployment of troops by truck and helicopter, field bivouac, and construction of temporary fighting/defensive positions. Exercises typically involve approach marches, weapons firing, and infantry tactical maneuvers. Weapons used include small arms, artillery up to 105 mm howitzers, and air support using up to 1,000-pound bombs.

Fort Greely is also used for annual joint-readiness training exercises. These typically involve 10,000-14,000 troops for division-level exercises, and 3,000-5,000 troops for brigade-level exercises. In recent

years, division-level training has been conducted in summer with brigade-level training conducted in December. These exercises involve the use of other Alaskan installations, but the main “battlefield” for these exercises has been on Fort Greely.

During winter months, many ranges are used by CRTC on a 24-hour per day basis. Summer use for the division-level, joint training exercises allows for better year-round scheduling of Fort Greely lands.

3-2 Effects of Military Mission on Natural Resources

The conservation of natural resources and the military mission will not be mutually exclusive.⁵

Fort Greely’s broad mission entails a variety of military land uses. Over the years, mechanized infantry, artillery, Special Forces, and assault aircraft have used Fort Greely for training.

3-2a Past and Current Military Mission Land Use

Past mission activities on Fort Greely were mostly localized. Among the most extensive impacts was the construction of the original landing strip and associated buildings. This involved removing soil and native vegetation and replacing them with gravel. Most land outside the cantonment area remains undeveloped, affected only by training.

The *Unit Leader’s Handbook for Environmental Stewardship* (Department of Army, 1994) lists six primary consequences of intensive and continuous use of Army training lands. On Fort Greely, none of these effects have been significant.

- ▶ Loss of historical sites, vegetation, water resources, and wildlife
- ▶ Diminished quality of available realistic training areas
- ▶ Diminished operational security
- ▶ Ineffective tactical operations
- ▶ Creation of safety hazards to personnel and equipment

- ▶ An increase in training, maintenance, and/or litigation costs

Damaging effects of military missions are primarily from two sources, projectile impact and maneuver. Impact damage occurs on 156,804 acres of impact areas on Fort Greely. Munitions damage soil, vegetation, and wildlife upon impact. For example, in the late 1980s, mortar rounds killed some bison. Other sources of damage from impact include proliferation of shrapnel and toxic residues. Munitions fired by the Army at Fort Greely, in fiscal year 1995, along with the number fired, are listed below.

<u>Small Arms</u>		<u>Mortars/Artillery</u>	
5.56mm	175,690	60mm	2,566
7.62mm	22,917	81mm	274
9mm	7,407	105mm	2,622
.50cal	1,600		
40mm	177	<u>Missiles</u>	
AT-4	101	TOW	131
25mm	1,303	Dragon	52
		Stinger	28
		AMRAAM	5
		Hellfire	3
		Chaparral	7
 <u>Demolitions</u>			
Claymores			66
15-lb Shape Chges			315
40-lb Crater Chges			360
C-4 in lbs			868.25
Bangalore Torpedoes			74
M15 AT Mines			12
M16A1 AP Mines			7
M19 AT Mines			12
Volcano Mines			2
Binary Explosives			48
N-Electric Caps			966
Electric Caps			113

The Air Force conducts decontamination operations on the Oklahoma/Delta Creek Impact Areas. Each year all unexploded ordnance and inert residue are cleared to a radius of at least 1,000 feet from each of the Air Force’s tactical targets. Additionally, access ways into the tactical targets and 100 feet on either side of the access ways are cleared each year.

⁵AR 200-3, *Natural Resources – Land, Forest and Wildlife Management*, para 2-11.

Training areas are where most field-oriented military training occurs. Land use includes foot, bivouac, maneuver, ranges, drop zones, airstrips, firing points, and rights-of-way. Foot use can occur in all types of terrain and vegetation and causes very little impact. Bivouacs can range in size from a pull-out just large enough to hold one vehicle, to cleared areas large enough for Battalion TOCs (Tactical Operations Center). Impacts are minimal when previously cleared sites are used. Clearing sites underlain by permafrost can have a greater impact on the military mission if the site becomes boggy and not usable for military training. Maneuvering can have negative impacts to the environment when trails are created in places that become boggy. Soon a lake will form, and most vehicles will not be able to navigate through the area. Impacts at firing points vary. Those with improvements such as gravel pads, bear-proof trash containers, and permanent or portable latrines, tend to stay in good condition. Firing points that are simply large clearings or areas of low vegetation can be impacted in ways similar to bivouac and maneuver areas.

Most winter training causes minimal damage. Mechanical snow removal can damage the vegetative mat if care is not taken to keep the blade above the ground level. Other military activities may cause some vegetation damage, but only down to the level of the snow.

Ranges, drop zones, and airstrips are generally able to withstand the activities that take place on them. However, the high usage of the Donnelly Assault Strip during the summer causes the dirt surface to break down and become thick dust, necessitating more frequent maintenance.

Fort Greely contains 414,505 acres suitable for cross-country maneuver. Vehicle maneuver activities damage soil and vegetation. Removal of the insulating mat (vegetation, moss, litter, etc.) in areas with perched water tables or underground water courses, results in deep rutted trails and impoundment of water in the tracks.

Noise from military training potentially affects natural resources by disturbing wildlife. Noise sources include munitions firing and impact, low flying aircraft, and general troop maneuvers (both mechanized and pedestrian). Munitions produce the great-

est noise levels, ranging from 112 to 190 dB (C). C-weighted (artillery fire, sonic booms, and explosions) and small arms sound levels have not been calculated for Fort Greely. However, no adverse effects to wildlife from noise have been observed on Fort Greely (Anonymous, 1979).

Potential impacts of military training on wildlife include: becoming entangled in concertina wire, drinking anti-freeze; and falling into unfilled holes. USARAK Regulation 350-2 requires all soldiers to remove concertina wire and trash, fill holes, and specifically restricts harassing wildlife.

Removal or alteration of wildlife habitat has occurred along roads and trails, within drop zones, firing ranges, and impact areas. Construction of roads and trails has impacted about 884 acres. Trails kept open by regular use are considered permanent, and most remain in an early successional stage of vegetation, consisting of grasses and alders. Temporary trails may scar areas of permafrost, causing disturbance that can take forty years or more to repair.

Similar direct effects result from construction of drop zones and firing ranges and impact of heavy weapons. Drop zone construction has impacted about 1,900 acres, while weapons detonations have impacted about 156,804 acres.

Aquatic ecosystems also have been subjected to direct and indirect impacts of military activities. Stream crossings by wheeled or tracked vehicles during summer results in loss of some aquatic life, primarily benthic organisms. Although not deliberately targeted, approximately 17,000 acres of the Delta River bottom have potentially been impacted by artillery misfires. Indirect impacts have likely resulted from stream crossings and artillery explosions near water. These secondary effects include increased sedimentation, increased biological and chemical oxygen demand, and slight decreases in dissolved oxygen concentration (Anonymous, 1979).

Military activities have increased the number of wildfires. Fire results in altered vegetation and can contribute to increased erosion and siltation. On the other hand, as discussed in other sections of this INRMP, there are many positive effects of wildfires on ecosystem functionality in interior Alaska.

There are numerous positive effects of the military mission on natural resources. The most significant is USARAK's commitment to natural resources management, including minimization and mitigation of military mission damage. This commitment is beneficial for natural resources and the people who use them.

Both unintentional and intentional military activities may provide short-term benefits to wildlife and hunters. For example, wildfires and construction activities that remove mature forest cover result in growth of early successional vegetation, which is preferred forage by moose, ruffed grouse, and other species. Roads and trails provide increased access for hunters.

Fort Greely preserves native ecosystems by excluding development and ensuring that competing land uses are conducted in a manner that protects the environment. Natural resources management considerations and safety demands associated with military activities limit the extent of other potentially damaging land uses. Damage from training activities will be repaired under the LRAM component of the ITAM program.

3-2b Future Mission Impacts on Natural Resources

It is difficult to predict the effects of future military missions on natural resources at Fort Greely because of the uncertainty involved with military training. If the mission remains unchanged, impacts on natural resources will remain similar to current impacts. Ongoing BRAC actions should not affect the conduct of the military mission. Training range activities and cold region testing will continue at current levels (HQ., USARPAC, 1996).

USARAK has established a land bridge corridor linking Fort Wainwright TFTA and Fort Greely through a land use permit with the state. This corridor, on state-owned land, is about eight miles long and 270 yards wide, paralleling the Tanana River. The permit allows the Army to construct a winter trail. The trail is roughly 20 feet wide, except for

occasional two-lane sections, which are approximately 40 feet wide. The corridor eliminates the need to use Tanana River ice bridges and roads. The corridor provides a 1,222,000-acre contiguous training area, capable of supporting large force-on-force operations (U.S. Army Alaska, 1996).

USARAK has used this corridor since the 1960s by obtaining a year-to-year permit from the state. The most recent use occurred in the 1970s. A recently concluded action established this corridor on a recurring basis using a limited land-use permit from the state. No land changed ownership.

Effects on natural resources was minimized by restricting use of the corridor to only winter months (November 15-April 15). Effects of this proposed action are described in the draft Environmental Assessment (U.S. Army Alaska, 1996). Strict ice bridge construction guidelines prohibiting riverbank grading minimizes damage to streams and rivers. Vehicles are restricted to prepared rights-of-way. Vegetation is cleared when frozen by using hydroaxes and hand cutting to minimize damage to permafrost. Soil disturbance is prohibited. Military activity, other than transportation between Fort Wainwright and Fort Greely, is prohibited, including bivouacking, off-trail maneuvers, live-fire training, and storage of fuel or hazardous materials.

Current plans are for limited use of the land-bridge corridor, as large force-on-force maneuvers are not scheduled as frequently as they have been in the past. This land bridge corridor action is in anticipation of such use, should these large-scale exercises be repeated in the future.

3-3 Natural Resources Limitations on the Military Mission

*"Natural and cultural resources management is widely acknowledged to have a more direct impact on the military mission than other environmental program elements."*⁶

Military training is affected by limitations imposed by natural resources on Fort Greely. Most limita-

⁶Rubeson, D., M.D. Millot, G. Farnsworth, and J. Aroesty. 1996. *More than 25 Million Acres? DOD As a Federal, Natural, and Cultural Resource Manager*. Rand National Defense Research Institute, Santa Monica, CA. 114 pp.

tions involve wetlands protected by Executive Order (EO), federal and state laws, and Army policies.

The elimination of all white phosphorous munitions use was imposed on Fort Greely in 1991. White phosphorus is commonly used to mark targets for air strikes. Without its use the Army and Air Force must rely on lasers. Another impact to Fort Greely is artillery units that normally trained at Eagle River Flats have had to travel to Fort Greely for training now restricted on Fort Richardson.

On occasion, big game (moose, bison) must be moved off the ranges prior to firing. The U.S. Air Force is required to stop exercises on the Oklahoma/Delta Creek Impact Area if large numbers of the Delta caribou herd are using the impact areas for calving. Historically, neither of these animal/military conflicts has negatively impacted the military accomplishing their mission.

Fort Greely is minimizing the potential for additional environmental damage by implementing restrictions on firing and seasonal use as listed below.

- ▶ Avoid potential peregrine falcon nesting areas and caribou calving areas during spring and summer
- ▶ Restrict helicopter flight zones to a minimum 500-foot flight level to avoid inadvertent harassment of wildlife
- ▶ Restrict winter firing in the Lakes Impact Area to avoid caribou herds
- ▶ Restrict spring use of the southern boundary of the Mississippi/Washington Impact Areas to avoid conflicts with bison calving and grizzly bear use
- ▶ Restrict Washington and Texas ranges to small arms fire in spring and summer, allowing heavy weapons use only during winter

Few of these restrictions cause significant impacts on the military mission. ADF&G coordinates with Range Control areas used by caribou and bison on Fort Greely, but generally few ranges are closed to firing. Section 13-4 further discusses these restrictions.

Other limitations on training are imposed by terrain characteristics. Dense black spruce forests and wetlands, such as those found in the West Training Area, are difficult barriers around which to maneuver. Training in the Lakes Impact Area is restricted to winter when the ground is frozen, allowing troop movement while protecting wetlands. However, terrain features offer realistic challenges to small unit maneuver, and learning to navigate through them is valuable training.